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Conference Abstract

TaxonWorks: a Use Case in Documenting of Etymology of Generic Names in Auchenorrhyncha (Hemiptera)

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Abstract

The 3i World Auchenorrhyncha database (http://dmitriev.speciesfile.org) is being migrated into TaxonWorks (http://taxonworks.org) and comprises nomenclatural data for all known Auchenorrhyncha taxa (leafhoppers, planthoppers, treehoppers, cicadas, spittle bugs). Of all those scientific names, 8,700 are unique genus-group names (which include valid genera and subgenera as well as their synonyms). According to the Rules of Zoological Nomenclature, a properly formed species-group name when combined with a genus-group name must agree with the latter in gender if the species-group name is or ends with a Latin or Latinized adjective or participle. This provides a double challenge for researchers describing new or citing existing taxa. For each species, the knowledge about the part of speech is essential information (nouns do not change their form when associated with different generic names). For the genus, the knowledge of the gender is essential information. Every time the species is transferred from one genus to another, its ending may need to be transformed to make a proper new scientific name (a binominal name). In modern day practice, it is important, when establishing a new name, to provide information about etymology of this name and the ways it should be used in the future publications: the grammatical gender for a genus, and the part of speech for a species. The older names often do not provide enough information about their etymology to make proper construction of scientific names. That is why in the literature, we can find numerous cases where a

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scientific name is not formed in conformity to the Rules of Nomenclature. An attempt was made to resolve the etymology of the generic names in Auchenorrhyncha to unify and clarify nomenclatural issues in this group of insects. In TaxonWorks, the rules of nomenclature are defined using the NOMEN onthology (https://github.com/SpeciesFileGroup/nomen).

Keywords

Homoptera, Auchenorrhyncha, leafhoppers, treehoppers, planthoppers, cicadas, spittle bugs, etymology

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